

State Mandated Childhood School Entry Immunizations: A Public Safety Issue

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Introduction

In February 2008, a measles outbreak threatened citizens from San Diego, California to Hawaii. Cheryl Clark (2008) from SignOn San Diego writes that, “in less than a month, the outbreak...began in Switzerland and has spanned about half the globe. The case demonstrates how quickly, extensively and silently the potentially lethal virus can spread.” Clark explains that a 7-year-old boy contracted the disease while vacationing with the family. This child then spread the disease to his two siblings and one classmate. After exhibiting symptoms of the disease, the child was taken to a clinic, where four other children were potentially infected. Clark states that “all these children, from infants to a 9-year-old, were not vaccinated because they were younger than 1 – the minimum age for measles inoculation – or because their parents objected to having them vaccinated.” These four other children that were potentially infected at the clinic could have then infected another 60 individuals with the disease (Clark, 2008)!

Every child, before school admittance, is asked to provide proof of immunization against certain diseases. These immunizations are given periodically, throughout a child’s pre-school years, in order to enhance and improve their immunity. However, although proof is requested, not all children are receiving these vaccines. Some are exempt for medical reasons; some are exempt for religious reasons; but, others are gaining exemption status for personal reasons. Salmon and Siegel (2001) explain in their article, that nonmedical exemptions are very easy to acquire and, for some, healthcare personnel need not be involved; merely a parent’s signature will suffice. If it were not for the history of immunizations, diseases like Polio would not be eliminated from the United States, and Smallpox would not be eradicated from the world. Nies and McEwen (2007) cite statistics from the Center of Disease Control about Measles and

Pertussis, both preventable by immunization. These statistics show that since 2003, there have only been 56 cases of Measles reported in the United States in comparison with over 11,000 cases of Pertussis reported that same year.

Diseases, like Polio, Pertussis, and Measles, are still endemic to certain areas of the world. It is important to understand that shifts in vaccination status among our children can have dire effects on the health of our country; or, as Salmon and Siegel (2001) state, “history tells us that such a shift can result in resurgence of disease and needless morbidity and mortality” (p. 294). These diseases can still be transmitted and infect those in this country. This paper will explain the importance of immunization in personal health as well as public health. It will also focus on why the state governments can, and should, step in to mandate that children are receiving the required immunizations to help protect themselves as well as those that are exempt for medical reasons. This is an important issue due to the increasing popularity of children who are not being vaccinated due to nonmedical exemptions.

Review of Literature

Vaccines are recommended to protect us from diseases. Salmon et al. (2004) describe vaccines as “one of the greatest achievements in medicine and public health during the past century (p. 553). Some of the diseases that are vaccine preventable carry debilitating side effects, miserable symptoms, and can even cause death. However, most individuals do not associate these diseases as risks for people today. Therefore, instead of considering the benefits of the immunizations, people have been trying to identify faults associated with them. Benjamin Levi (2007) explains in his article, that the media is in part responsible for this misconception. The media has begun inquiring about the importance and safety of vaccines. Levi (2007) also explains that some of the resistance to childhood immunizations also stems from the lack of

knowledge or inaccurate ideas that parents have when it comes to the benefits and risks of getting vaccinated.

We have seen a surge of questioning in regards to even the seasonal flu vaccines provided every year. In a study of nonmedical exemption rates in schools, the results of another case-control study were reported to identify vaccination safety as the top concern of parents that chose not to vaccinate their children. This study of nonmedical exemption rates in schools also showed the lack of vaccination among the children with nonmedical exemptions leads these children to an increased risk of contracting disease, as well as an increased risk of transmission among the community (Omer, Pan, Halsey, & et al., 2006).

Public health programs have been in place to fight vaccine preventable diseases for over a century. Mariner, Annas, and Glantz (2005) tell of a case that occurred in 1905. The Massachusetts Supreme Judicial Court tried the case *Jacobson vs. Massachusetts* regarding the Board of Health mandating immunizations for everyone against smallpox, which was endemic at the time. There was a monetary fine associated with declining the vaccine. The decision was upheld, that the states had the authority to “police their internal affairs,” which was found to include the health of the people (Mariner, Annas, & Glantz, 2005). Some would argue that this is a violation of one’s right to decline medical treatment. Others, who opt out of immunizations for religious reasons, would argue that this is a violation of the First Amendment and the right to practice religion. However, the article over religious and philosophical exemptions from vaccination explain that the Court recognizes laws must be religiously neutral, and that this right to practice does not allow for parents to put their children at risk or the community at risk to a communicable disease. Salmon and Siegel (2001) explain this further with the explanation that

“parents are free to become martyrs themselves. But it does not follow that they are free in identical circumstances, to make martyrs of their children” (p. 291).

With regards to protection of the community, vaccination is explained to be the ‘duty of the citizens’. This article describes vaccination in respects to male citizenship and war. Like those who were drafted and expected to fight for their country, so should we fight the war against disease. To gain religious sanction for war is described as a very lengthy process (Salmon & Siegel, 2001). To think of vaccination as a duty to serve and protect, maybe we should re-evaluate the ease of claiming exemption. This process should be more than a signature or a written statement; it should be an equally lengthy process to determine one’s sincerity in refusing to vaccinate their child.

This issue becomes a matter of the rights guaranteed to all by the laws of the country. Is it a fundamental right to choose whether or not children get vaccinated? Mariner et al. (2005) help define those rights that are considered fundamental. In the article covering the Jacobson vs. Massachusetts case, the fundamental rights have been listed as: freedom of speech, voting, freedom from arbitrary physical restraint, marriage, contraception, procreation, family relationships, raising children, and education. This article goes on to explain that schools have the right to require immunizations among their students as long as two conditions are satisfied, the first being that the disease still exists in the population, and the second being that there is a safe immunization that can prevent the spread of the disease to others (Mariner et al., 2005). There are some individuals, children and adults, who have medical conditions that do not allow for them to be immunized. Therefore, it is the responsibility of the rest of us to make sure that we are immunized in order to protect those that cannot be. Omer, Pan, Halsey, and et al (2006) state this concept perfectly in their article, when they say “states must balance parental autonomy

with the tremendous public health benefit of vaccines when considering the types of exemptions allowed...” (p. 1763).

Nonmedical exemptions increase the risk for everyone not immunized against certain diseases; whether it be a medical exemption, religious exemption, personal exemption, or the fact that a child is not old enough to be immunized. The risk for these groups increases by having someone that could be immunized, not vaccinated. The study of nonmedical exemptions to school immunizations requirements describes the trend of nonmedical exemption as being “geographically clustered.” This clustering is said to increase the risk for a mass susceptibility in an area, which in turn, increases the risk for a disease outbreak. This study also states that as of 2006, 48 states allowed for religious exemptions, and 19 states allowed for personal exemptions (Omer et al., 2006). The ease of claiming exemptions has an impact on the number of nonmedical exemptions experienced in that state. For example, in this study of nonmedical exemptions to school immunization requirements, it was concluded that states that have easily achievable exemptions have a higher mean of nonmedical exemptions than those that have a medium or difficult way of achieving exemption. It was also found that there is an association with easily obtained nonmedical exemption and an increased incidence of pertussis (Omer et al., 2006). Therefore, we can conclude that the rate of disease is inversely proportioned with the rate of vaccination.

Children naturally acquire immunity from exposure to toxins and disease. This can be done through experiencing the disease process and developing immunity, or from receiving vaccination and developing immunity. For those that cannot receive vaccinations, or those that choose not to receive vaccinations, there is another type of immunity called herd immunity. Herd immunity, Nies and McEwen (2007) explain, is the immunity one receives indirectly, not

through the vaccination of themselves, but through association to a population where at least 80-percent of the population is immunized. However, if we continue to easily allow nonmedical exemptions for the vaccination of children, we see the proportion of those vaccinated to those not vaccinated slowly even out closer to a 1:1 ratio. Keeping in mind the need for at least 80-percent of the population to be vaccinated in order to maintain herd immunity, we would need at least four vaccinated individuals for every one unvaccinated individual.

Conclusion

The future of vaccinations is uncertain at this point. Mariner et al. (2005) note that public health is no longer a concern only at the local level; it has now manifested into the duty of the state and federal government. Medical technology is surging and new treatments are available. But it is important to remember the power of vaccinations and the devastating diseases that we have eliminated from our country because of immunizations. Jennifer Steinhauer (2008) of the New York Times states that children that are not vaccinated are “unnecessarily susceptible” and that they pose a threat to those children that are vaccinated because some of the vaccinations are not 100-percent effective at preventing the illness. It is the job of parents to protect their children. If parents choose to not vaccinate their children, they are endangering not only their own child, but they are also endangering the children that cannot get immunized for medical reasons as well as those that take the responsibility to get vaccinated. With the rise in the number of nonmedical exemptions, the states should step in and mandate the vaccination of children before entry to school to ensure the safety of the public.

References

- Clark, C. (2008, Feb 13). Flight spreads measles from S.D. to Hawaii. *SignOn San Diego*. Retrieved from: <http://legacy.signonsandiego.com/news/metro/20080213-9999-1n13measles.html>.
- Levi, B. H. (2007). Addressing Parents' Concerns About Childhood Immunizations: A Tutorial for Primary Care Providers. *Pediatrics*, 120 (1), 18-26.
- Mariner, W. K., Annas G. J., & Glantz L.H. (2005). Jacobson v Massachusetts: It's Not Your Great-Great-Grandfather's Public Health Law. *American Journal of Public Health*, 95 (4), 581-590.
- Nies, M. A. & McEwen M. (2007). Communicable Disease. *Community/Public Health Nursing: Promoting the Health of Populations* (495-501). St. Louis: Saunders, Elsevier.
- Omer, S. B., Pan W.K.Y., Halsey N.A., & et al. (2006). Nonmedical Exemptions to School Immunization Requirements: Secular Trends and Association of State Policies With Pertussis Incidence. *JAMA*, 296 (14), 1757-1763.
- Salmon, D. A., Moulton L.H., Omer S.B., Chace L.M., Klassen A., Talebian P., & Halsey N. (2004). Knowledge, Attitudes, and Beliefs of School Nurses and Personnel and Associations With Nonmedical Immunization Exemptions. *Pediatrics*, 113 (6), 552-9
- Salmon, D. A. & Siegel A. W. (2001). Religious and Philosophical Exemptions from Vaccination Requirements and Lessons Learned from Conscientious Objectors from Conscription. *Public Health Reports*, 116, 289-295.
- Steinhauer, J. (2008, Mar 21). Public health risk seen as parents reject vaccines. *The New York Times*. Retrieved from: http://www.nytimes.com/2008/03/21/us/21vaccine.html?_r=1&hp&oref=slogin